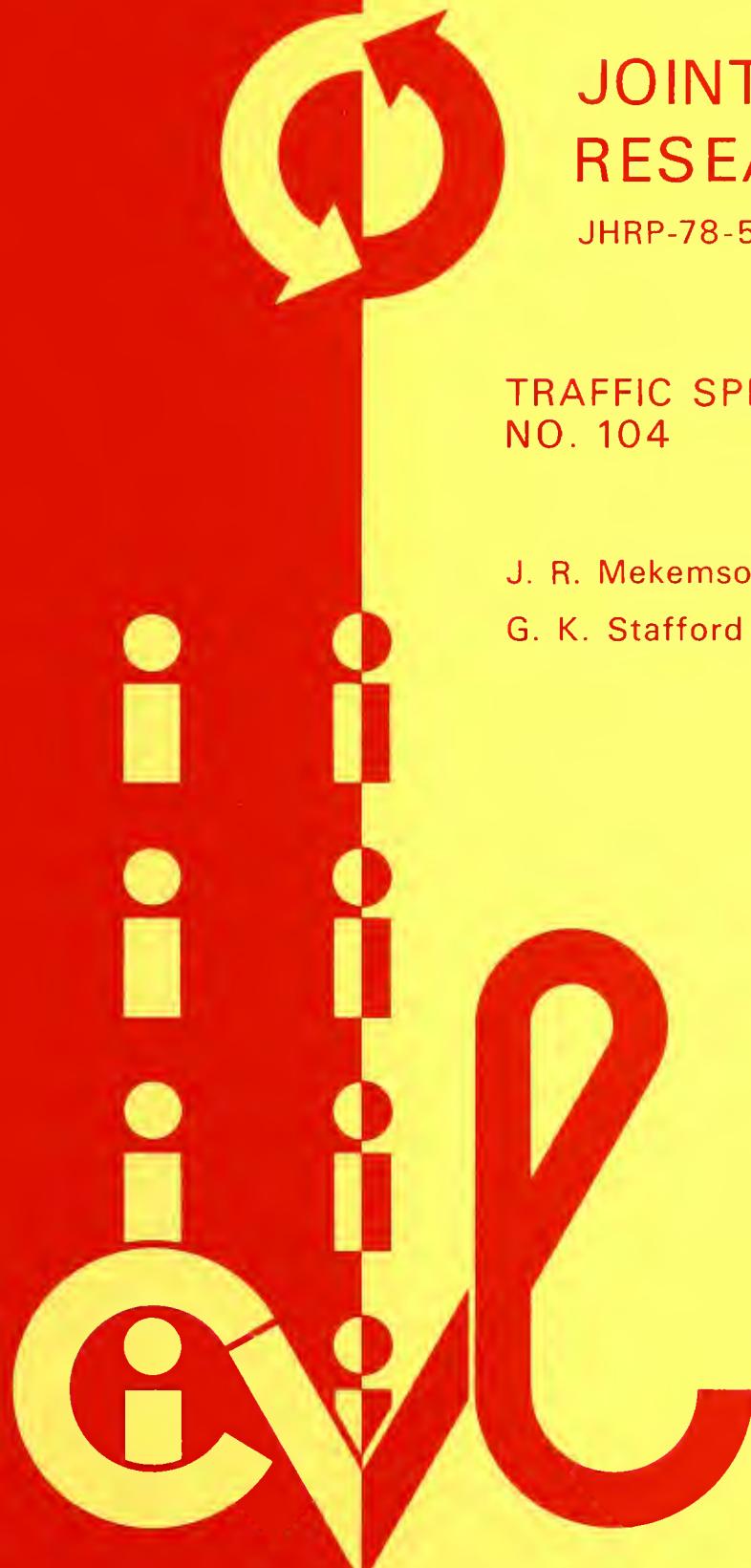


# SCHOOL OF CIVIL ENGINEERING



# JOINT HIGHWAY RESEARCH PROJECT

JHRP-78-5

## TRAFFIC SPEED REPORT NO. 104

J. R. Mekemson

G. K. Stafford



# PURDUE INDIANA STATE

# UNIVERSITY HIGHWAY COMMISSION

A very faint, blurry background image of a bridge with a train crossing it, spanning the width of the page.

Digitized by the Internet Archive  
in 2011 with funding from

LYRASIS members and Sloan Foundation; Indiana Department of Transportation

TRAFFIC SPEED REPORT NO. 104

TO: J. F. McLaughlin, Director April 4, 1978  
Joint Highway Research Project  
FROM: H. L. Michael, Associate Director File: 8-3-3  
Joint Highway Research Project Project: C-36-10C

The attached Progress Report No. 104 on Traffic Speeds is the report of the January-March, 1978 quarterly study of free-flowing automobile and truck speeds on rural, tangent, level sections of Interstate, 4-lane and 2-lane and on urban interstate highways in Indiana. The report has been prepared by Mr. J. R. Mekemson, a Graduate Instructor in Research on our staff, under the direction of Professor H. L. Michael. The data collection was directed by Mr. G. K. Stafford of our staff.

The results indicate that the average speeds of passenger cars and trucks have changed little since the October-December 1977 study. The average speeds of passenger cars and of heavy trucks were found to be 0.3 mph and 0.4 mph less, respectively, than for the previous period. The percentage of all vehicles travelling more than 5 mph above the speed limit decreased to 33 percent while 10 percent were more than 10 mph above the 55 mph limit.

Copies of the report will be sent to the Federal Highway Administration and the ISHC for review, comment and acceptance as partial fulfillment of the objectives of this HPR Part I Study. Copies of the report are requested for release to the Indiana State Police and the Indiana Office of Traffic Safety as a normal procedure for these reports.

Respectfully submitted,

Frank L. Meador

Harold L. Michael  
Associate Director

HLM:mb

cc: A. G. Altschaeffl	G. K. Hallock	C. F. Scholer
O. M. Bevilacqua	D. E. Hancher	M. B. Scott
W. L. Dolch	K. R. Hoover	K. C. Sinha
R. L. Eskew	R. F. Marsh	C. A. Venable
G. D. Gibson	R. D. Miles	L. E. Wood
W. H. Goetz	P. L. Owens	E. J. Yoder
M. J. Gutzwiller	G. T. Satterly	S. R. Yoder



Interim Report  
TRAFFIC SPEED REPORT NO. 104

by

J. R. Mekemson  
Graduate Instructor in Research

and

G. K. Stafford  
Traffic Engineering Technician

Joint Highway Research Project

Project No.: C-36-10C

File No.: 8-3-3

Prepared as Part of an Investigation  
Conducted by

Joint Highway Research Project  
Engineering Experiment Station  
Purdue University

in Cooperation with the  
Indiana State Highway Commission  
and the

U.S. Department of Transportation  
Federal Highway Administration

The opinions, findings and conclusions expressed in this publication  
are those of the authors and not necessarily those of the Federal  
Highway Administration.

Purdue University  
West Lafayette, Indiana  
June 1, 1978



1. Report No. JHRP-78-5	2. Government Accession No.	3. Recipient's Catalog No.	
4. Title and Subtitle TRAFFIC SPEED REPORT NO. 104		5. Report Date June 1, 1978	6. Performing Organization Code
7. Author(s) J. R. Mekemson and G. K. Staffor		8. Performing Organization Report No. JHRP-78-5	
9. Performing Organization Name and Address Joint Highway Research Project Civil Engineering Building Purdue University West Lafayette, IN 47907		10. Work Unit No.	11. Contract or Grant No. IIPR-1(15) Part I
12. Sponsoring Agency Name and Address Indiana State Highway Commission State Office Building 100 North Senate Avenue Indianapolis, IN 46204		13. Type of Report and Period Covered Interim Report January-March 1978	14. Sponsoring Agency Code
15. Supplementary Notes Conducted in cooperation with the U.S. Department of Transportation, Federal Highway Administration under a planning study titled "Speed Trends for Indiana Highways".			
16. Abstract This report is another in the continuing study of speeds of vehicles on Indiana highways. Observations of spot speeds were taken on interstate, four-lane and two-lane highways throughout the state during the January-March 1978 quarter.			
Analysis of the speeds showed the overall average speed for all vehicles was 58.4 mph. The overall average speeds for passenger cars and all trucks were 59.0 mph and 57.8 mph respectively. These overall speeds when compared to the results of the October-December 1977 quarter (Speed Report No. 103) indicated little change. Average speeds obtained were very similar for the two periods - 0.3 mph less for all passenger cars and 0.4 mph less for heavy trucks for the most recent quarter.			
17. Key Words Speeds, Highway Speeds, Rural Highway Speeds, Speed Trends, 55 mph Speed Effect		18. Distribution Statement No restrictions. This document is available to the public through the National Technical Information Service, Springfield, Virginia 22161	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 43	22. Price



## TRAFFIC SPEED REPORT NO. 104

This report is an analysis of spot speed observations made during January-March 1978. All observations were made of free-flowing vehicles on level, tangent sections of rural and urban highways during daylight and under favorable conditions.

The speed monitoring stations for each highway classification are divided into two groups. The first group is identified as "control stations" and were at the same locations on selected Federal and State highways as used in previous annual studies. These "control stations" are used in each quarterly study. The second group is selected at random for each quarterly study.

Fourteen speed monitoring stations were used for the study reported herein. Seven of these stations were the control stations noted above. The other seven stations were selected at random.

Stations were classified as two-lane, four-lane, rural interstate, or urban interstate highways. A representative sample of spot speeds was obtained at each station in each classification. The site locations were as follows: (See Figure A).

Rural Interstate Highways

*RI-6 (I-65)	7.5 miles north of junction of SR 160
*RI-21 (I-69)	1.6 miles south of junction of SR 18
RI-1 (I-64)	1.7 miles west of US 41
RI-11 (I-74)	2.4 miles east of SR 244

Four-Lane Highways

*4L-14 (US 52)	Just east of Co. Rd. 475W, near Klondike
*4L-32 (US 30)	2.9 miles west of Wanatah city limit sign
4L-10 (SR 37)	2.4 miles south of Marion-Johnson County Line
4L-11 (SR 37)	2.9 miles north of Business 37

Two-Lane Highways

*2L-18 (US 35)	2.5 miles east of junction of I-69
*2L-54 (US 231)	1.1 miles south of junction of SR 234
2L-1 (US 27)	2.6 miles south of Decatur city limit sign
2L-86 (US 41)	3.5 miles N.W. of Warren-Fountain county line



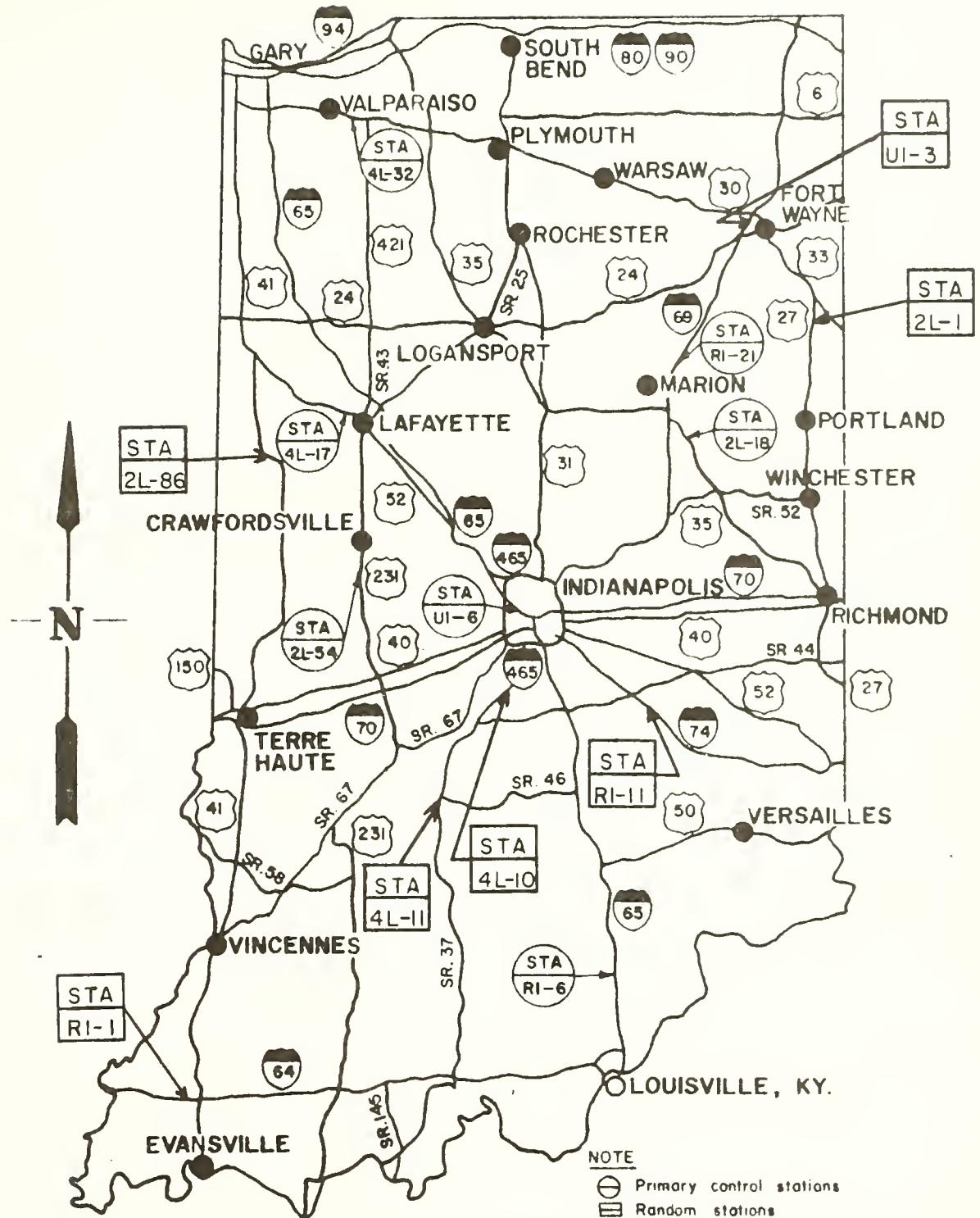


FIGURE A. LOCATIONS OF SPEED-STUDY STATIONS



Urban Interstate Highways

\*UI-6 (I-65)

East of White River Bridge

UI-3 (I-64)

1.4 miles south of US 30, 33, 24

---

\*Control stations

The vehicles were classified as Indiana or Non-Indiana Passenger Cars and Light (less than 5000 lbs. gross weight) or Heavy (equal to or more than 5000 lbs. gross weight) Trucks. The analysis was performed as classified and combined, passenger cars or trucks.

The maximum speed limit in Indiana is 55 miles per hour, both on Interstate and other rural highways.

Equipment and Field Procedure

The observations for this study were obtained by use of a Radar Speed Meter. The meter was located in a van type vehicle parked as a disabled vehicle on the right shoulder or as a normally parked vehicle in an access driveway to the road. The van was equipped with one-way vision windows on the rear and side facing traffic so that approaching vehicles could not observe the speed measurement process. The observers were also equipped with CB radio equipment so as to monitor possible radio notification of the speed measurement and of police vehicles in the area. When any such incidents occurred speeds were not taken for at least a following 15 minute period. Such periods rarely occurred. There was rarely indication, in fact, that motorists were ever aware of the presence of a speed measuring station while it was in operation.

The speed was measured at a distance from the van so that the angle of measurement with the highway center line was always less than  $10^{\circ}$ . No corrections of speeds were necessary at these small angles. At the beginning of the study the accuracy of the meter was checked and any constant discrepancy of readings was corrected accordingly.



## RESULTS OF ANALYSIS

The data collected were analyzed and are summarized in Table 1 to 14 in the Appendix. Tables 15, 16, 17 and 18 summarize the data for rural interstate, four-lane, two-lane and urban interstate highways, respectively. Table 19 is the summary for all highways. Tables 20 through 34 are summarized in an FHWA format which is desired.

The average speed for each classification of vehicles on each type of highway for this study was as follows:

	<u>Urban</u>	<u>Interstate</u>	<u>Rural</u>	<u>Other</u>	<u>Four Lane</u>	<u>Two Lane</u>
				<u>Rural</u>		<u>Rural</u>
<b><u>Passenger Cars:</u></b>						
Indiana	59.7		61.0		58.1	57.2
Non-Indiana	61.2		61.4		60.2	58.9
All Passenger Cars	59.9		61.1		58.2	57.3
85 Percentile (all)	63.9		65.7		62.7	62.3
<b><u>Trucks:</u></b>						
Less than 5000 lbs.	58.1		59.8		57.3	55.5
5000 lbs. or more	58.4		59.8		57.6	54.5
<b><u>All Vehicles:</u></b>						
Average	59.3		61.1		57.9	56.3
85 Percentile	63.5		65.8		62.5	61.3

The percent of vehicles exceeding the speed limit (55 mph) for each classification of vehicle and each type of highway was as follows:

	<u>Urban</u>	<u>Interstate</u>	<u>Rural</u>	<u>Four Lane</u>	<u>Two Lane</u>
				<u>Rural</u>	
<b><u>Passenger Cars:</u></b>					
Indiana	83.1		88.6		70.3
Non-Indiana	94.5		88.6		87.3
All Passenger Cars	84.2		88.6		71.3
<b><u>Trucks:</u></b>					
Less than 5000 lbs.	74.2		78.9		66.7
5000 lbs. or more	74.2		82.5		69.1
<b><u>All Vehicles:</u></b>					
	80.0		85.3		70.1
					56.5



The percent of vehicles traveling more than 5 mph above the speed limit (exceeding 60 mph) for each case was as follows:

	<u>Urban</u>	<u>Interstate</u>	<u>Rural</u>	<u>Other</u> <u>Four Lane</u> <u>Rural</u>	<u>Two Lane</u> <u>Rural</u>
<u>Passenger Cars:</u>					
Indiana	42.3		49.5	27.3	24.9
Non-Indiana	52.7		53.4	47.9	32.8
All Passenger Cars	43.3		50.6	28.6	25.4
<u>Trucks:</u>					
Less than 5000 lbs.	34.4		42.3	28.6	20.2
5000 lbs. or more	33.1		41.8	28.7	13.8
All Vehicles:	39.4		46.5	28.3	21.8

The percent of vehicles traveling more than 10 miles per hour above the speed limit (exceeding 65 mph) for each case was as follows:

	<u>Urban</u>	<u>Interstate</u>	<u>Rural</u>	<u>Other</u> <u>Four Lane</u> <u>Rural</u>	<u>Two Lane</u> <u>Rural</u>
<u>Passenger Cars:</u>					
Indiana	11.3		17.1	7.0	7.5
Non-Indiana	12.7		21.0	11.3	11.9
All Passenger Cars	11.5		18.2	7.3	7.8
<u>Trucks:</u>					
Less than 5000 lbs.	8.6		14.6	4.4	5.0
5000 lbs. or more	7.7		13.5	5.2	2.6
All Vehicles:	10.1		16.1	6.4	6.1



### Summary and Conclusions

The overall average speeds for all vehicles and for all passenger cars in this study were found to be 58.4 mph and 59.0 mph, respectively. The overall average speeds for heavy trucks and for all trucks were found to be 57.8 mph and 57.6 respectively. These overall speeds show little change from the results of the October-December 1977 quarter. All calculated average speeds were slightly less than the previous quarter, 0.3 mph for all vehicles and 0.3 mph for all passenger cars. For heavy trucks and for all trucks the average speeds were respectively 0.4 mph and 0.5 mph less.

Table A presents a comparison of the overall speed results with that of the previous two studies. The 85th percentiles and the average speeds have decreased slightly when compared to the previous October-December 1977 study.

A comparison of January-March 1978 speed data with that for other recent periods for several types of highways for passenger cars and trucks is shown in Tables B, C, D, and E. Speeds were similar to the last quarter on all highway types for both passenger cars and trucks except for heavy trucks on Urban Interstates.

This change on the Urban Interstates was an average speed increase for heavy trucks of 1.8 mph, a percentage of heavy trucks over 55 mph increase of 8.6 percent; a percentage over 60 mph increase of 12.4 percent; and a percentage over 65 mph increase of 6.0 percent.



TABLE A  
COMPARISON OF THE OVERALL SPEED RESULTS

	Jan.-March 1978	Oct.-Dec. 1977	July-Sept. 1977	April-June 1977
<u>Average</u>				
All Passenger Cars	59.0	59.3	57.8	58.1
Heavy Trucks	57.8	58.2	57.4	58.6
All Trucks	57.6	58.1	57.0	58.0
<u>85 Percentile</u>				
All Passenger Cars	63.8	64.0	62.6	63.0
Heavy Trucks	62.9	63.4	62.5	63.3
All Trucks	62.8	63.3	62.3	63.0
<u>15 Percentile</u>				
Heavy Trucks	51.8	52.0	51.1	52.9



TABLE B  
AVERAGE SPEEDS ON INTERSTATE HIGHWAYS (URBAN)

	Jan.-March 1978	Oct.-Dec. 1977	July-Sept. 1977	April-June 1977
<u>Passenger Cars:</u>				
Indiana	59.7	59.8	58.7	58.7
Non-Indiana	61.2	59.0	59.0	59.1
All Passenger Cars	59.9	59.7	58.8	58.8
85 Percentile (all)	63.9	63.8	62.7	62.9
<u>Trucks:</u>				
Less than 5000 lbs.	58.3	59.1	57.7	57.7
5000 lbs. or more	58.4	56.6	58.2	58.9

TABLE C  
AVERAGE SPEEDS ON INTERSTATE HIGHWAYS (RURAL)

	Jan.-March 1978	Oct.-Dec. 1977	July-Sept. 1977	April-June 1977
<u>Passenger Cars:</u>				
Indiana	61.0	61.2	60.1	60.4
Non-Indiana	61.4	61.8	60.1	60.5
All Passenger Cars	61.1	61.5	60.1	60.5
85 Percentile (all)	65.9	66.1	64.5	64.8
<u>Trucks:</u>				
Less than 5000 lbs.	59.8	60.1	58.4	59.3
5000 lbs. or more	59.8	61.3	59.7	60.9



TABLE D  
AVERAGE SPEEDS ON OTHER FOUR-LANE HIGHWAYS

	Jan.-March 1978	Oct.-Dec. 1977	July-Sept. 1977	April-June 1977
<u>Passenger Cars:</u>				
Indiana	58.0	58.4	57.0	57.1
Non-Indiana	60.2	59.6	58.1	57.8
All Passenger Cars	58.2	58.6	57.2	57.2
85 Percentile (all)	62.7	62.9	62.0	61.9
<u>Trucks:</u>				
Less than 5000 lbs.	57.3	57.5	55.7	56.7
5000 lbs. or more	57.6	57.8	56.6	58.0

TABLE E  
AVERAGE SPEEDS ON TWO-LANE HIGHWAYS

	Jan.-March 1978	Oct.-Dec. 1977	July-Sept. 1977	April-June 1977
<u>Passenger Cars:</u>				
Indiana	57.2	57.7	55.9	56.3
Non-Indiana	58.9	58.4	55.9	57.3
All Passenger Cars	57.3	57.8	55.9	56.4
85 Percentile (all)	62.3	63.0	60.9	61.4
<u>Trucks:</u>				
Less than 5000 lbs.	55.5	56.7	54.9	55.6
5000 lbs. or more	54.4	54.7	53.5	55.1



TABLE 1 SPEED DATA

STATION\_RI-6 HIGHWAY\_I-65 NO. OF LANES 4  
 DATE 3-20-78 TIME 1:30-2:20 PM  
 12:20-1:12 PM SB

LOCATION 7.5 miles north of S.R. 160

THIS OBSERVATION  
 DATE 3-20-78  
 TIME 1:30-2:20 PM NB  
 12:20-1:12 PM SB

TYPE OF SURFACE Concrete

LAST OBSERVATION (SPEED REPORT NO. 103)  
 DATE 11-9-77  
 TIME 1:15-1:56 PM NB  
 12:19-1:00 PM SB

## PASSENGER CARS

OBSERVATION NUMBER OF VEHICLES	ALL			NON-INDIANA			ALL			TRUCKS		
	PRES-	PRES-	PRES-	PRES-	PRES-	PRES-	PRES-	PRES-	PRES-	PRES-	PRES-	PRES-
246	246	134	214	112	32	184	202	57	53	127	149	
60.70	61.29	61.70	61.23	60.90	61.72	60.10	61.18	59.80	61.82	60.20	60.95	
5.400	4.870	5.210	4.975	5.640	4.144	4.680	5.096	5.460	5.999	4.300	4.735	
24 MPH	0	0	0	0	0	0	0	0	0	0	0	
29 MPH	0	0	0	0	0	0	0	0	0	0	0	
34 MPH	0	0	0	0	0	0	0	0	0	0	0	
39 MPH	0	0	0	0	0	0	0	0	0	0	0	
PERCENT OF VEHICLES	1.2	4	1.5	5	2	0	1.1	0	1.8	0	0	
TRAVELING AT OR LESS THAN	45.1	34.6	42.5	36.0	48.2	25.9	10.3	7.4	14.0	7.5	8.7	
74 MPH	80.1	76.4	79.8	77.1	80.4	71.2	85.3	44.6	44.1	56.1	37.7	
79 MPH	94.3	94.2	94.7	95.5	92.9	92.9	10.0	92.3	72.8	82.5	69.8	
84 MPH	92.6	98.4	98.4	97.8	98.1	99.1	10.0	10.0	100.0	98.5	92.5	
89 MPH	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
DIRECTION NB												
NUMBER OF VEHICLES	131	129	71	113	60	16	84	100	25	31	59	69
AVERAGE SPEED	52.40	60.70	59.30	60.75	59.50	60.31	58.60	62.23	57.40	62.65	59.10	62.13
DIRECTION SB												
NUMBER OF VEHICLES	112	117	63	101	52	16	100	102	32	22	68	80
AVERAGE SPEED	61.95	62.30	61.20	61.76	62.50	63.13	61.30	60.16	61.60	60.95	61.20	59.94



TABLE 2 SPEED DATA

STATION\_RI-21 HIGHWAY 1-69  
 THIS OBSERVATION DATE 3-21-78  
 TIME 3:57-4:01 PM  
 2:15-3:10 PM

NO. OF LANES 4 TYPE OF SURFACE Concrete

LOCATION 1.6 miles south of S.R. 18

WEATHER cloudy

LAST PREVIOUS OBSERVATION (SPEED REPORT NO. 103)  
 DATE 1-21-77  
 TIME 1:32 AM - 12:28 PM NB  
 10:29-11:22 AM SB

OBSERVATION	NUMBER OF VEHICLES	PASSENGER CARS			TRUCKS		
		ALL	INDIANA	NON-INDIANA	ALL	INDIANA	NON-INDIANA
AVE. SPEED (MPH)	60.29	61.03	60.00	60.88	60.60	61.66	59.70
STANDARD DEVIATION	4.760	5.218	4.560	5.243	5.170	5.164	5.350
24 MPH	0	0	0	0	0	0	0
29 MPH	0	0	0	0	0	0	0
34 MPH	0	0	0	0	0	0	0
39 MPH	0	0	0	0	0	0	0
PERCENT OF VEHICLES TRAVELING AT OR LESS THAN	44 MPH	0	0	0	0	0	0
	49 MPH	4	2	6	5	1.6	2.9
	54 MPH	8.0	9.4	7.0	5.2	1.1	1.5
	59 MPH	4.8	4.04	5.17	4.45	2.86	4.59
	64 MPH	8.2	7.63	8.60	8.59	7.14	8.52
	69 MPH	9.24	9.27	9.66	9.18	9.29	9.52
	74 MPH	9.85	9.88	9.94	9.82	9.52	9.84
	79 MPH	9.96	10.00	10.00	9.88	10.00	10.00
	84 MPH	10.00	10.00	10.00	10.00	10.00	10.00
	89 MPH	10.00	10.00	10.00	10.00	10.00	10.00
DIRECTION	NB	128	119	86	42	33	91
NUMBER OF VEHICLES	128	61.84	60.30	61.88	60.10	61.73	60.80
AVERAGE SPEED	60.30	61.84	60.30	61.88	60.10	61.73	60.80
DIRECTION	SB	126	92	96	43	30	83
NUMBER OF VEHICLES	125	59.99	59.60	59.44	61.00	61.17	58.50
AVERAGE SPEED	60.10	60.27	60.27	60.27	61.00	61.17	58.60



TABLE 3 SPEED DATA

STATION\_RI=1 HIGHWAY\_I-64  
 NO. OF LANES\_4  
 THIS OBSERVATION DATE 3-13-78 TIME 3:40-4:40 PM  
 TIME 1:47-3:20 PM

LOCATION 1.7 miles west of U.S. 41

TYPE OF SURFACE Concrete

WEATHER 3-14-78 cloudy

LAST PREVIOUS OBSERVATION (SPEED REPORT NO. 103)

DATE 3-14-78 TIME 12:10-1:00 PM EB

## PASSENGER CARS

OBSERVATION NUMBER OF VEHICLES	ALL - INDIANA			NON-INDIANA			ALL - PRES-			TRUCKS		
	LAST ENT	LAST PRES	LAST ENT	LAST PRES	LAST ENT	LAST PRES	LAST ENT	LAST PRES	LAST ENT	LAST PRES	LAST ENT	LAST PRES
AVE SPEED (MPH)	60.20	0	52.76	0	60.52	0	52.52	0	58.70	0	59.85	0
STANDARD DEVIATION	4.732	0	4.284	0	5.063	0	5.635	0	5.711	0	5.587	0
24 MPH	0	0	0	0	0	0	0	0	0	0	0	0
29 MPH	0	0	0	0	0	0	0	0	0	0	0	0
34 MPH	0	0	0	0	0	0	0	0	0	0	0	0
39 MPH	0	0	0	0	0	0	0	0	0	0	0	0
44 MPH	0	0	0	0	0	0	0	0	0	0	0	0
49 MPH	0	0	0	0	0	0	0	0	0	0	0	0
VEHICLES	54 MPH	0	2.1	0	9.5	0	8.8	0	16.3	0	18.6	0
TRAVELING AT OR	59 MPH	0	48.4	0	48.8	0	48.0	0	51.4	0	64.3	0
LESS THAN	64 MPH	0	83.3	0	85.7	0	81.4	0	82.0	0	84.3	0
74 MPH	0	94.6	0	97.6	0	92.2	0	95.5	0	92.7	0	95.4
79 MPH	0	99.5	0	100.0	0	99.0	0	99.2	0	98.6	0	99.4
84 MPH	0	100.0	0	100.0	0	100.0	0	100.0	0	100.0	0	100.0
89 MPH	0	100.0	0	100.0	0	100.0	0	100.0	0	100.0	0	100.0
DIRECTION - EB	NUMBER OF VEHICLES	0	98	0	47	0	51	0	122	0	35	0
AVERAGE SPEED	60.20	0	59.81	0	60.57	0	59.81	0	58.91	0	60.17	0
DIRECTION - WB	NUMBER OF VEHICLES	0	88	0	37	0	51	0	123	0	35	0
AVERAGE SPEED	60.20	0	59.70	0	60.57	0	59.24	0	58.49	0	59.52	0



TABLE 4 SPEEDED DATA

STATION - RI-11- HIGHWAY - I-74-  
 NO. OF LANES - 4- TYPE OF SURFACE -

LAST PREVIOUS OBSERVATION (SPEED REPORT NO. 103)  
WEATHER Partly Cloudy  
Concrete  
DATE  
TIME

PASSENGER-CARS		TRUCKS																
ALL		<5000 LBS. PRES-			5000- LBS. PRES-			>2000 LBS. PRES-										
INDIANA		NON-INDIANA		ALL		PRES-		ENT										
PRES-	PRES-	PRES-	PRES-	PRES-	PRES-	PRES-	PRES-	PRES-	PRES-									
OBSERVATION	LASI	ENI	LASI	ENI	LASI	ENI	LASI	ENI	LAST									
NUMBER OF VEHICLES	0	2.52	0	1.87	0	6.5	0	1.75	0									
AVERAGE SPEED (MPH)	0	61.78	0	61.58	0	62.35	0	59.02	0									
STANDARD DEVIATION	0	5.424	0	5.523	0	5.128	0	4.961	0									
24 MPH	0	0	0	0	0	0	0	0	0									
29 MPH	0	0	0	0	0	0	0	0	0									
34 MPH	0	0	0	0	0	0	0	0	0									
39 MPH	0	0	0	0	0	0	0	0	0									
PERCENT OF VEHICLES TRAVELING AT OR LESS THAN 74 MPH	54 MPH	4	54 MPH	4	54 MPH	7.4	54 MPH	4.6	54 MPH	6	0	0	0	0	0	0	0	0
AT OR LESS THAN 79 MPH	59 MPH	36.5	59 MPH	38.2	59 MPH	32.3	59 MPH	24.3	59 MPH	34	0	0	0	0	0	0	0	0
AT OR LESS THAN 84 MPH	64 MPH	72.6	64 MPH	73.3	64 MPH	70.8	64 MPH	88.4	64 MPH	88.4	0	0	0	0	0	0	0	0
AT OR LESS THAN 89 MPH	69 MPH	91.7	69 MPH	92.5	69 MPH	89.2	69 MPH	97.7	69 MPH	97.7	0	0	0	0	0	0	0	0
AT OR LESS THAN 94 MPH	74 MPH	98.4	74 MPH	97.9	74 MPH	100.0	74 MPH	100.0	74 MPH	100.0	0	0	0	0	0	0	0	0
AT OR LESS THAN 99 MPH	79 MPH	99.6	79 MPH	99.5	79 MPH	100.0	79 MPH	100.0	79 MPH	100.0	0	0	0	0	0	0	0	0
AT OR LESS THAN 104 MPH	84 MPH	100.0	84 MPH	100.0	84 MPH	100.0	84 MPH	100.0	84 MPH	100.0	0	0	0	0	0	0	0	0
DIRECTION EB	NUMBER OF VEHICLES	0	1.17	0	8.5	0	32	0	97	0	22	0	21	0	57	0	75	0
DIRECTION NW	NUMBER OF VEHICLES	0	1.35	0	10.2	0	33	0	78	0	45	0	59.45	0	59.53	0	59.40	0
DIRECTION SW	NUMBER OF VEHICLES	0	61.53	0	61.23	0	62.45	0	58.45	0	59.14	0	58.30	0	58.30	0	58.30	0



TABLE 5 SPEED DATA

STATION\_4L-17----- HIGHWAY\_US\_52-----

NO. OF LANES 4----- TYPE OF SURFACE Asphalt-----

THIS OBSERVATION  
 DATE 3-2-78  
 TIME 12:08-1:55 PM EB  
 9:00-11:00 AM WB

LAST PREVIOUS OBSERVATION (SPEED REPORT NO. 103-)  
 DATE 11-8-77  
 TIME 12:29-1:44 PM EB  
 9:29-11:26 AM WB

## PASSENGER CARS

## TRUCKS

OBSERVATION	LAST	ALL		INDIANA		NON-INDIANA		ALL		<5000 LBS		>5000 LBS	
		PRES-	ENT	PRES-	ENT	PRES-	ENT	PRES-	ENT	PRES-	ENT	PRES-	ENT
NUMBER OF VEHICLES	278	284	246	280	32	4	151	156	89	96	62	60	60
AVERAGE SPEED (MPH)	56.80	57.02	56.60	57.14	58.00	42.00	56.10	56.18	56.30	56.62	55.80	55.47	55.47
STANDARD DEVIATION	5.900	5.739	6.000	5.658	5.000	6.481	7.250	5.827	7.040	6.018	7.580	5.482	5.482
PERCENT	4.0	0	0	0	0	0	0	0	0	0	0	0	0
OF VEHICLES	8.3	8.1	8.5	7.1	6.3	7.5	9	13.9	12.8	10.1	13.5	19.4	11.7
TRAVELING AT OR LESS THAN	28.8	30.6	30.9	30.0	12.5	75.0	35.1	31.4	40.5	26.0	27.4	40.0	40.0
DIRECTION EB	146	157	131	157	15	0	62	68	43	47	26	21	21
NUMBER OF VEHICLES	56.20	56.69	55.90	56.69	58.10	0	54.50	55.40	54.60	55.70	54.30	54.21	54.21
AVERAGE SPEED	57.30	57.43	57.40	57.71	57.80	49.00	57.50	56.78	57.90	57.51	57.00	55.87	55.87
DIRECTION WB	132	127	115	123	17	4	82	88	46	49	36	39	39
NUMBER OF VEHICLES	57.40	57.43	57.40	57.71	57.80	49.00	57.50	56.78	57.90	57.51	57.00	55.87	55.87
AVERAGE SPEED	57.30	57.43	57.40	57.71	57.80	49.00	57.50	56.78	57.90	57.51	57.00	55.87	55.87



TABLE 6 SPEED DATA

STATION 4L-32	HIGHWAY U.S. 30	LOCATION 2.9 miles west of Wanatah city limit sign
NO. OF LANES 4	TYPE OF SURFACE Asphalt	WEATHER Partly Cloudy
THIS OBSERVATION		LAST PREVIOUS OBSERVATION (SPEED REPORT NO. 103)
DATE 3-23-78		DATE 11-18-77
TIME 12:25:1:30 PM EB		TIME 10:34-11:28 AM EB
11:15 AM-12:15 PM WB		9:28-10:16 AM WB

PASSENGER CARS			TRUCKS		
ALL	INDIANA	NON-INDIANA	ALL	<5000 LBS	>5000 LBS
LAST	LAST	LAST	LAST	PRES-	PRES-
ENTI	ENTI	ENTI	ENTI	PRES-	PRES-
NUMBER OF VEHICLES	180	218	131	196	224
AVERAGE SPEED (MPH)	57.50	58.27	57.40	58.10	58.50
STANDARD DEVIATION	4.790	4.120	4.510	4.126	4.540
24 MPH	0	0	0	0	0
29 MPH	0	0	0	0	0
34 MPH	0	0	0	0	0
39 MPH	0	0	0	0	0
PERCENT	4.4	4.6	4.8	4.2	4.5
OF VEHICLES	4.9	2.8	2.8	3.1	2.8
TRAVELING AT OR LESS THAN	54 MPH	27.8	16.2	27.5	17.3
74 MPH	62.4	61.5	71.8	64.3	63.3
79 MPH	92.2	94.5	92.6	95.4	91.8
84 MPH	97.8	99.5	98.5	99.5	95.9
89 MPH	100.0	100.0	100.0	100.0	100.0
DIRECTION EB					
NUMBER OF VEHICLES	94	110	68	96	14
AVERAGE SPEED	57.60	58.49	57.70	58.22	57.50
DIRECTION WB					
NUMBER OF VEHICLES	86	108	63	100	23
AVERAGE SPEED	57.30	58.04	57.20	57.98	57.50



TABLE 7 SPEED DATA

STATION_4L-10	HIGHWAY_S.R. 37	LOCATION_3.4 Miles south of Marion-Johnson-County-Line
NO. OF LANES_4	TYPE OF SURFACE_Concrete	
THIS OBSERVATION DATE 3-15-78 TIME 11:55 AM - 1:08 PM_NB 10:45-11:44 AM SB	LAST PREVIOUS OBSERVATION (SPEED DATE TIME	WEATHER_Cloudy

ALL		PASSENGER CARS		TRUCKS	
ALL		INDIANA	NON-INDIANA	ALL	<2000 LBS.
PRES-		PRES-	PRES-	PRES-	PRES-
OBSERVATION	LAST	LAST	LAST	LAST	LAST
NUMBER OF VEHICLES	0	302	0	24	0
AVERAGE SPEED (MPH)	0	58.78	0	60.75	0
STANDARD DEVIATION	0	5.271	0	4.320	0
24 MPH	0	0	0	0	0
29 MPH	0	0	0	0	0
34 MPH	0	0	0	0	0
39 MPH	0	0	0	0	0
PERCENT OF VEHICLES	0	6	0	7	0
TRAVELING AT OR LESS THAN	59 MPH	0	3.9	0	4.2
64 MPH	0	19.1	0	20.4	0
69 MPH	0	60.2	0	62.5	0
74 MPH	0	86.7	0	86.7	0
79 MPH	0	97.4	0	97.5	0
84 MPH	0	92.4	0	92.3	0
89 MPH	0	99.7	0	99.6	0
DIRECTION_NB	0	100.0	0	100.0	0
NUMBER OF VEHICLES	0	164	0	153	0
AVERAGE SPEED	0	59.43	0	59.37	0
DIRECTION_SB	0	145	0	132	0
NUMBER OF VEHICLES	0	58.03	0	57.73	0
AVERAGE SPEED	0	61.08	0	57.44	0



TABLE 8 SPEED DATA

STATION\_4L-11-- HIGHWAY\_S.R.-37-- LOCATION\_2.9\_miles\_north\_of\_Business\_37--  
 NO. OF LANES\_4-- TYPE OF SURFACE\_Asphalt--  
 THIS OBSERVATION DATE\_3-16-78  
 TIME\_12:43-1:45 PM NB  
 11:28-12:24 PM SB

LAST PREVIOUS OBSERVATION (SPEED REPORT NO. 103--)

DATE  
TIME

WEATHER\_Partly Cloudy

PASSENGER CARS		TRUCKS	
ALL	INDIANA	ALL	INDIANA
OB-SERVATION	LAST	LAST	LAST
NUMBER OF VEHICLES	0 3 09	0 2 88	0 1 36
AVE. SPEED (MPH)	0 58.49	0 58.22	0 56.73
STANDARD DEVIATION	0 5.217	0 5.062	0 5.036
24 MPH	0 0	0 0	0 0
29 MPH	0 0	0 0	0 0
34 MPH	0 0	0 0	0 0
39 MPH	0 0	0 0	0 0
PERCENT	0 44	0 3	0 2
OF	49 MPH	2.9	1.1
VEHICLES	54 MPH	21.0	22.2
TRAVELING	59 MPH	61.8	63.2
AT OR	64 MPH	88.7	89.9
LESS THAN	69 MPH	96.8	97.2
74 MPH	99.4	99.7	95.2
79 MPH	92.7	100.0	95.2
84 MPH	100.0	100.0	100.0
89 MPH	100.0	100.0	100.0
DIRECTION	NB		
NUMBER OF VEHICLES	0 155	0 146	0 73
AVERAGE SPEED	0 57.23	0 57.07	0 59.78
DIRECTION	SB		
NUMBER OF VEHICLES	0 154	0 142	0 63
AVERAGE SPEED	0 59.76	0 59.41	0 58.73



TABLE - 2 - SPEED DATA

STATION - 2L - 18 - - -	HIGHWAY - U - S - 35 - - -	LOCATION - 2.4 miles - east - of - I - 69 - at - Cleo - Glass - Research
NO. OF LANES - 2 - - -	TYPE OF SURFACE Asphalt	
THIS OBSERVATION		
DATE 3-21-78		
TIME 10:55 AM - - - 1:12 PM		

LAST PREVIOUS OBSERVATION (SPEED REPORT NO. - 103)  
 DATE 11-21-77  
 TIME 1:37-3:28 PM

PASSENGER CARS			TRUCKS		
ALL	INDIANA	NON-INDIANA	ALL	<5000 LBS	>5000 LBS
PRESS -	PRES -	PRES -	PRES -	PRES -	PRES -
OBSERVATION	LAST	ENT	LAST	ENT	LAST
NUMBER OF VEHICLES	283	249	257	232	79
AVE. SPEED (MPH)	57.60	57.94	57.50	57.81	68
STANDARD DEVIATION	6.080	5.480	6.110	5.459	67
24 MPH	0	0	0	0	12
29 MPH	0	0	0	0	98
34 MPH	0	0	0	0	843
39 MPH	0	0	0	0	0
PERCENT	2.1	4	2.3	4	0
OF VEHICLES	7.1	6.4	7.4	6.9	0
TRAVELING AT OR LESS THAN	27.9	23.7	27.6	23.7	0
DIRECTION - EB	67.1	67.1	67.7	68.1	0
NUMBER OF VEHICLES	122	125	120	114	97
AVERAGE SPEED	58.40	58.02	58.30	57.88	44
DIRECTION - WB	124	137	118	117	43
NUMBER OF VEHICLES	154	137	118	117	40
AVERAGE SPEED	56.90	57.87	56.80	57.75	54.20
DIRECTION - EB	100.0	100.0	100.0	100.0	93
NUMBER OF VEHICLES	122	125	120	114	62
AVERAGE SPEED	58.40	58.02	58.30	57.88	54.00
DIRECTION - WB	124	137	118	117	54.20
NUMBER OF VEHICLES	154	137	118	117	54.20
AVERAGE SPEED	56.90	57.87	56.80	57.75	53.70



TABLE I. SPEED DATA

STATION - 21-54-2- NO. OF LANES - 2- HIGHWAY - U.S. 231 - TYPE OF SURFACE

NO. OF LANES	TYPE OF SURFACE	Asphalt
2		

PREVIOUS OBSERVATION (SPEED REPORT NO. 103)  
DATE 7-29-77  
TIME 10:14 AM -- 12:42 PM --

卷之三

INDIANA - NON-INDIANA ALL <50000 >50000



TABLE III SPEED DATA

STATION\_2L=1 HIGHWAY\_U\_S\_27-- LOCATION\_2.6\_miles\_south\_of\_Dearborn\_City\_limit\_sign  
 NO. OF LANES\_2 TYPE OF SURFACE\_Asphalt--  
 THIS OBSERVATION DATE\_3-27-78  
 TIME\_12:20-2:35\_PM

LAST PREVIOUS OBSERVATION (SPEED REPORT NO. 103-)  
 DATE  
 TIME

PASSENGER CARS			TRUCKS		
ALL	INDIANA	NON-INDIANA	ALL	<5000 LBS.	>5000 LBS.
PRES- OBSERVATION	PRES- LAST	PRES- ENT	PRES- LAST	PRES- ENT	PRES- ENT
NUMBER OF VEHICLES	285	0	279	0	64
AVERAGE SPEED (MPH)	56.39	0	56.09	0	54.12
STANDARD DEVIATION	5.196	0	5.201	0	5.273
24 MPH	0	0	0	0	0
29 MPH	0	0	0	0	0
34 MPH	0	0	0	0	0
39 MPH	0	0	0	0	0
PERCENT OF VEHICLES	1.4	0	1.4	0	1.6
TRAVELING AT OR LESS THAN	75.1	0	74.9	0	74.1
74 MPH	0	0	0	0	0
79 MPH	0	0	0	0	0
84 MPH	0	0	0	0	0
89 MPH	0	0	0	0	0
DIRECTION_NB					
NUMBER OF VEHICLES	0	144	0	142	0
AVERAGE SPEED	0	57.01	0	57.05	0
DIRECTION_SB					
NUMBER OF VEHICLES	0	141	0	137	0
AVERAGE SPEED	0	55.74	0	55.72	0



TABLE 12 SPEED DATA

STATION 2L-86	HIGHWAY U.S. 41	LOCATION 3.5 miles N.W. of Warren-Fountain County Line
NO. OF LANES 2	TYPE OF SURFACE Asphalt	
THIS OBSERVATION		LAST PREVIOUS OBSERVATION (SPEED REPORT NO. 103)
DATE 3-28-78	DATE	
TIME 10:05 AM	TIME	3:30 PM

PASSENGER-CARS		TRUCKS	
ALL	INDIANA	NON-INDIANA	ALL
PRESS	PRES	PRES	25000 LBS.
PERCENT	LAST	LAST	25000 LBS.
NUMBER OF VEHICLES	22	24	25000 LBS.
AVE. SPEED (MPH)	57.11	56.85	57.11
STANDARD DEVIATION	6.740	6.680	6.740
24 MPH	0	0	0
29 MPH	0	0	0
34 MPH	0	0	0
39 MPH	0	0	0
44 MPH	4.4	4.5	4.4
49 MPH	9.2	10.7	9.2
54 MPH	34.9	36.6	34.9
TRAVELING AT OR LESS THAN	59 MPH	69.0	70.1
74 MPH	88.2	90.2	88.2
79 MPH	95.6	96.4	95.6
84 MPH	98.0	98.2	98.0
89 MPH	99.6	99.6	99.6
DIRECTION E	100.0	100.0	100.0
NUMBER OF VEHICLES	0	144	0
AVERAGE SPEED	57.52	57.06	57.52
DIRECTION W	108	101	108
NUMBER OF VEHICLES	0	56.56	0
AVERAGE SPEED	56.56	56.60	56.56
WEATHER Clear			



TABLE 13 SPEED DATA

STATION\_U1-6 HIGHWAY\_I-65 TYPE OF SURFACE\_Concrete

NO. OF LANES\_6 LOCATION\_Just east of White River

THIS OBSERVATION  
 DATE 3-27-78  
 TIME 10:50-11:30 AM EB  
 11:40 AM - 12:10 PM WB

LAST PREVIOUS OBSERVATION (SPEED REPORT NO. 103 )  
 DATE 11-14-77  
 TIME 1:08-1:35 PM EB  
 1:48-2:14 PM WB

PASSENGER_CARS	LAST			PREVIOUS																					
	ALL	INDIANA	NON-INDIANA	ALL	INDIANA	NON-INDIANA	ALL	INDIANA	NON-INDIANA	ALL	INDIANA	NON-INDIANA	ALL	INDIANA	NON-INDIANA	ALL	INDIANA	NON-INDIANA	ALL	INDIANA	NON-INDIANA	ALL	INDIANA	NON-INDIANA	
ALL	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PERCENT	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
OF	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
VEHICLES	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
TRAVELING	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
AT OR	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
LESS THAN	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
74 MPH	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	
79 MPH	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
84 MPH	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
89 MPH	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
DIRECTION_EB	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
NUMBER_OF_VEHICLES	143	175	114	163	29	12	76	93	38	40	38	40	38	40	38	40	38	40	38	40	38	40	38	40	38
AVERAGE_SPEED	57.80	59.32	57.70	59.20	58.40	61.00	56.00	58.30	56.30	57.95	55.70	55.70	55.70	55.70	55.70	55.70	55.70	55.70	55.70	55.70	55.70	55.70	55.70	55.70	
DIRECTION_WB	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
NUMBER_OF_VEHICLES	132	156	115	148	17	8	85	70	42	25	43	45	43	45	43	45	43	45	43	45	43	45	43	45	43
AVERAGE_SPEED	58.40	59.87	58.40	59.76	58.70	61.88	57.70	58.54	57.60	58.44	57.90	58.60	58.60	58.60	58.60	58.60	58.60	58.60	58.60	58.60	58.60	58.60	58.60	58.60	58.60



TABLE 14--SPEED DATA

STATION\_U1-3 HIGHWAY\_I-64  
NO. OF LANES 4  
THIS OBSERVATION DATE 3-22-78  
TIME 8:35-9:10 AM\_NB  
9:30-10:20 AM SB

LOCATION 1.4 miles south of U.S. 30, 33, 24

TYPE OF SURFACE Concrete

LAST PREVIOUS OBSERVATION (SPEED REPORT NO. 103)

DATE 3-22-78  
TIME 8:35-9:10 AM\_NB  
9:30-10:20 AM SB

WEATHER Clear

OBSERVATION NUMBER OF VEHICLE S	AVE. SPEED (MPH)	STANDARD DEVIATION	PASSENGER CARS			TRUCKS		
			ALL	INDIANA	NON-INDIANA	ALL	<5000 LBS.	>5000 LBS.
PERCENT OF VEHICLES	44 MPH	0	0	0	0	0	0	0
AT OR LESS THAN	49 MPH	0	0	0	0	0	0	0
TRAVELING	54 MPH	0	7.4	0	7.7	0	5.7	0
	59 MPH	0	4.8	0	5.0	0	3.4	0
	64 MPH	0	8.4	0	8.4	0	8.0	0
	69 MPH	0	9.4	0	9.4	0	9.1	0
	74 MPH	0	9.9	0	9.9	0	10.0	0
	79 MPH	0	10.0	0	10.0	0	10.0	0
	84 MPH	0	10.0	0	10.0	0	10.0	0
	89 MPH	0	100.0	0	100.0	0	100.0	0
DIRECTION_NB			0	126	0	112	0	105
NUMBER_OF_VEHICLE S	0	60.70	0	60.69	0	60.86	0	59.95
AVERAGE_SPEED	0	59.86	0	60.69	0	60.86	0	60.35
DIRECTION_SB			0	118	0	90	0	61.11
NUMBER_OF_VEHICLE S	0	59.86	0	59.47	0	28	0	56.76
AVERAGE_SPEED	0	59.86	0	59.47	0	108	0	57.28



TABLE 15 SPEED DATA

STATION\_R1A1L HIGHWAY\_4-Lane\_Rural LOCATION\_See Individual Stations

NO. OF LANES ----- TYPE OF SURFACE -----

THIS OBSERVATION  
DATE\_Jan.=March\_1978  
TIME\_LAST PREVIOUS OBSERVATION (SPEED REPORT NO. 103)  
DATE\_Oct.=Dec.  
TIME\_

OBSERVATION NUMBER OF VEHICLES	AVE. SPEED (MPH)	STANDARD DEVIATION	PASSENGER CARS			TRUCKS			LAST PREV. PRESS-	LAST PREV. PRESS-	LAST PREV. PRESS-
			ALL	INDIANA	NON-INDIANA	ALL	INDIANA	NON-INDIANA			
0	9.29	0	6.67	0	2.62	0	8.35	0	21.3	0	6.22
0	6.114	0	6.105	0	6.137	0	5.979	0	5.979	0	5.979
0	5.113	0	5.147	0	5.025	0	5.2374	0	5.898	0	5.188
2.4 MPH	0	0	0	0	0	0	0	0	0	0	0
2.9 MPH	0	0	0	0	0	0	0	0	0	0	0
3.4 MPH	0	0	0	0	0	0	0	0	0	0	0
3.9 MPH	0	0	0	0	0	0	0	0	0	0	0
PERCENT OF VEHICLES	4.4 MPH	0	0	0	0	0	2.1	0	2	0	2
4.9 MPH	0	4	0	4	0	0	6	0	5	0	6
5.4 MPH	0	8.2	0	8.2	0	0	2.8	0	3.3	0	2.6
5.9 MPH	0	3.94	0	40.5	0	0	14.5	0	16.0	0	14.0
6.4 MPH	0	7.67	0	77.4	0	0	49.3	0	50.7	0	48.2
LESS THAN 6.9 MPH	0	9.23	0	93.4	0	0	81.2	0	79.8	0	81.7
7.4 MPH	0	9.87	0	98.5	0	0	96.5	0	95.3	0	96.9
7.9 MPH	0	9.98	0	99.2	0	0	99.4	0	98.1	0	99.8
8.4 MPH	0	10.00	0	100.0	0	0	100.0	0	100.0	0	100.0
8.9 MPH	0	10.00	0	100.0	0	0	100.0	0	100.0	0	100.0



TABLE 16—SPEED DATA

STATION - 4 LANE	HIGHWAY - 4 Lane - Rural	LOCATION - See Individual Stations	WEATHER
NO. OF LANES	TYPE OF SURFACE	LAST OBSERVATION	PREVIOUS OBSERVATION (SPEED REPORT NO. 103)
		DATE - Jan - March 1978	DATE - Oct. - Dec. - 1977
		TIME	TIME



TABLE 17 SPEED DATA

STATION - 2-LANE -		HIGHWAY - 2-Lane - Rural	LOCATION - See Individual Stations	WEATHER -
NO. OF LANES -	TYPE OF SURFACE -			
THIS OBSERVATION				LAST PREVIOUS OBSERVATION (SPEED REPORT NO. - 103)
DATE - Jan. - March - 1978				DATE Oct. - Dec. 1977
TIME -				TIME

PASSENGER CARS		TRUCKS	
ALL	INDIANA	ALL	<5000 LBS.
NON-INDIANA	PRES-	PRES-	PRES-
OBSERVATION	LAST	ENT	LAST
NUMBER OF VEHICLES	0	1034	0
AVE. SPEED (MPH)	0	57.33	0
STANDARD DEVIATION	0	5.894	0
24 MPH	0	0	0
29 MPH	0	0	0
34 MPH	0	0	0
39 MPH	0	2	0
44 MPH	0	17	0
49 MPH	0	71	0
54 MPH	0	303	0
59 MPH	0	62	0
TRAVELING AT OR LESS THAN	0	898	0
74 MPH	0	967	0
79 MPH	0	926	0
84 MPH	0	922	0
89 MPH	0	1000	0
PERCENT OF VEHICLES	LAST	ENT	LAST
NUMBER OF VEHICLES	0	967	0
AVE. SPEED (MPH)	0	57.23	0
STANDARD DEVIATION	0	5.870	0
24 MPH	0	0	0
29 MPH	0	0	0
34 MPH	0	0	0
39 MPH	0	2	0
44 MPH	0	18	0
49 MPH	0	74	0
54 MPH	0	309	0
59 MPH	0	629	0
TRAVELING AT OR LESS THAN	0	903	0
74 MPH	0	990	0
79 MPH	0	926	0
84 MPH	0	922	0
89 MPH	0	1000	0
LAST	ENT	LAST	ENT
NUMBER OF VEHICLES	0	67	0
AVE. SPEED (MPH)	0	58.85	0
STANDARD DEVIATION	0	6.068	0
24 MPH	0	0	0
29 MPH	0	0	0
34 MPH	0	0	0
39 MPH	0	4	0
44 MPH	0	12	0
49 MPH	0	15	0
54 MPH	0	15	0
59 MPH	0	209	0
TRAVELING AT OR LESS THAN	0	836	0
74 MPH	0	910	0
79 MPH	0	957	0
84 MPH	0	921	0
89 MPH	0	997	0
LAST	ENT	LAST	ENT
NUMBER OF VEHICLES	0	361	0
AVE. SPEED (MPH)	0	55.53	0
STANDARD DEVIATION	0	6.506	0
24 MPH	0	0	0
29 MPH	0	0	0
34 MPH	0	0	0
39 MPH	0	2	0
44 MPH	0	7	0
49 MPH	0	17	0
54 MPH	0	17	0
59 MPH	0	436	0
TRAVELING AT OR LESS THAN	0	836	0
74 MPH	0	910	0
79 MPH	0	957	0
84 MPH	0	921	0
89 MPH	0	997	0
LAST	ENT	LAST	ENT
NUMBER OF VEHICLES	0	391	0
AVE. SPEED (MPH)	0	54.45	0
STANDARD DEVIATION	0	5.947	0
24 MPH	0	0	0
29 MPH	0	0	0
34 MPH	0	0	0
39 MPH	0	2	0
44 MPH	0	7	0
49 MPH	0	166	0
54 MPH	0	187	0
59 MPH	0	410	0
TRAVELING AT OR LESS THAN	0	836	0
74 MPH	0	910	0
79 MPH	0	957	0
84 MPH	0	921	0
89 MPH	0	997	0



TABLE\_18--SPEED DATA

STATION\_U1ALL----- HIGHWAY\_Interstate LOCATION\_See\_Individual Stations  
 NO. OF LANES -----  
 THIS OBSERVATION DATE\_Jan., March, 1978  
 TIME\_-----  
 Urban TYPE OF SURFACE

LAST PREVIOUS OBSERVATION (SPEED REPORT NO. -103)  
 DATE\_Oct., Dec., 1977  
 TIME\_-----

		PASSENGER CARS		TRUCKS		
		ALL	INDIANA	NON-INDIANA	ALL	
		PRES-	PRES-	PRES-	<5000 LBS.	
OBSERVATION	LAST	ENT	LAST	ENT	LAST	
NUMBER OF VEHICLES	9	525	0	520	0	
AVE. SPEED (MPH)	59.88	0	59.74	0	61.16	0
STANDARD DEVIATION	0.5063	0	5.121	0	4.311	0
24 MPH	0	0	0	0	0	0
29 MPH	0	0	0	0	0	0
34 MPH	0	0	0	0	0	0
39 MPH	0	0	0	0	0	0
PERCENT OF VEHICLES TRAVELING AT OR LESS THAN	44 MPH	0	3	0	0	0
	49 MPH	0	1.9	2.1	0	1.1
	54 MPH	0	11.7	12.5	0	6.1
	59 MPH	0	48.9	50.4	0	34.5
	64 MPH	0	85.4	85.8	0	81.8
	69 MPH	0	94.8	95.0	0	92.7
	74 MPH	0	92.5	92.4	0	98.7
	79 MPH	0	100.0	0	100.0	0
	84 MPH	0	100.0	0	100.0	0
	89 MPH	0	100.0	0	100.0	0



TABLE 19 SPEED DATA

STATION ALL HIGHWAY Indiana System  
 NO. OF LANES TYPE OF SURFACE

THIS OBSERVATION DATE Jan., March 1978  
 TIME

LAST PREVIOUS OBSERVATION (SPEED REPORT NO. 103)  
 DATE Oct., Dec., 1977  
 TIME

OBSERVATION	LAST	PASSENGER CARS			TRUCKS		
		ALL	INDIANA	NON-INDIANA	ALL	<2000 LBS.	>2000 LBS.
NUMBER OF VEHICLES	LAST	ENT	LAST	ENT	ENT	PRES-	PRES-
AVE. SPEED (MPH)	0	32.0	32.0	45.2	26.2	99.9	0
STANDARD DEVIATION	0	5.8	6.9	6.0	6.3	57.3	0
24 MPH	0	5.2	5.7	5.7	5.2	57.8	0
29 MPH	0	5.2	5.7	5.2	5.3	6.175	0
34 MPH	0	5.0	5.0	5.0	5.0	0	0
39 MPH	0	4.1	4.0	4.0	4.0	0	0
PERCENT	0	4.8	4.8	4.4	5.4	2.5	2.4
OF	0	3.8	4.2	4.1	8.7	9.7	8.0
VEHICLES	0	1.9	2.0	2.0	2.1	2.8	2.0
TRAVELING	0	5.9	5.7	5.8	4.1	6.5	7.0
AT OR	0	8.2	8.8	8.6	7.5	8.9	8.0
LESS THAN	0	9.5	9.2	9.6	9.3	9.8	9.5
74 MPH	0	9.2	9.2	9.2	9.1	9.7	9.2
79 MPH	0	9.9	9.8	9.9	9.8	9.2	9.4
84 MPH	0	10.0	10.0	10.0	10.0	10.0	10.0
89 MPH	0	10.2	10.2	10.0	10.0	10.0	10.0



TABLE 20

Monitoring of Speed  
(Statistical Summary) Quarterly Report--Calendar Quarter Ending March 31, 1978or  Annual Report--Year Ending \_\_\_\_\_STATE Indiana

Miles	Number of Monitor Locations	Number of Vehicles Measured	Duration of Measurement Session (Hours)	Average Speed (MPH)	Median Speed (MPH)	Percent of Motorists Exceeding		
						55 MPH	60 MPH	65 MPH
Interstate Urban	218	2	951	2.6	59.3	58.7	63.5	80
Interstate Rural	849	4	1764	8.0	60.0	60.0	65.3	85
Multi-lane, Divided	657	4	1779	10.1	57.9	57.4	62.5	70
Multi-lane, Undivided (Included in multi-lane, divided classification)								
2-Lane, Rural	8030	4	1786	13.3	56.3	55.9	61.3	56
State Total	9754	14	6280	34.0	58.4	57.9	63.4	72
								33
								10



TABLE 21  
SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY	INTERSTATE	RURAL
STATION NUMBER	RI-6	LOCATION
		7.5 miles north of SR 160
NUMBER OF SESSIONS	1	DATES
	3-20-78	VEHICLES MEASURED
AVERAGE SPEED (MPH)	61.2	STANDARD DEVIATION
MEDIAN SPEED (MPH)	60.2	85TH PERCENTILE SPEED (MPH)
PERCENTAGE OF VEHICLES EXCEEDING:		
55 MPH	90	60 MPH
	51	65 MPH
	20	70 MPH



TABLE --22

## SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY <u>I</u> INTERSTATE, RURAL		
STATION NUMBER <u>R1-21</u>	LOCATION <u>1.6</u> miles south of S.R. 18	
NUMBER OF SESSIONS <u>1</u>	DATES <u>3-21-78</u>	VEHICLES MEASURED <u>458</u>
AVERAGE SPEED (MPH) <u>60.2</u>	STANDARD DEVIATION <u>5.4</u>	
MEDIAN SPEED (MPH) <u>59.6</u>	85TH PERCENTILE SPEED (MPH) <u>65.0</u>	
PERCENTAGE OF VEHICLES EXCEEDING:		
55 MPH	<u>84</u>	60 MPH <u>47</u>
		65 MPH <u>15</u>



TABLE 23

## SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY	INTERSTATE	RURAL
STATION NUMBER	RI-1	LOCATION 1.7 miles west of US 41
NUMBER OF SESSIONS	1	DATES
VEHICLES MEASURED	431	
AVERAGE SPEED (MPH)	52.8	STANDARD DEVIATION 5.3
MEDIAN SPEED (MPH)	52.0	85TH PERCENTILE SPEED (MPH) 64.6
PERCENTAGE OF VEHICLES EXCEEDING:		
55 MPH	81	60 MPH 40 <sub>+</sub> 65 MPH 13 <sub>+</sub>



TABLE 24 -

## SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY INTERSTATE - RURAL  
STATION NUMBER RI-11 LOCATION 2.4 miles east of SR 244  
NUMBER OF SESSIONS 1 DATES 3-17-18 VEHICLES MEASURED 427  
AVERAGE SPEED (MPH) 60.6 STANDARD DEVIATION 5.4  
MEDIAN SPEED (MPH) 59.7 85TH PERCENTILE SPEED (MPH) 65.5  
PERCENTAGE OF VEHICLES EXCEEDING:  
55 MPH 82 60 MPH 48 65 MPH 17



TABLE 25--

## SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY		MULTI-LANE DIVIDED (RURAL)	
STATION NUMBER		41-17 LOCATION	
150 feet east of County Road 475W, near Klondike			
NUMBER OF SESSIONS		1 DATES	
3-2-78		VEHICLES MEASURED	
440			
AVERAGE SPEED (MPH)		56.7	
STANDARD DEVIATION		5.8	
MEDIAN SPEED (MPH)		56.1	
85TH PERCENTILE SPEED (MPH)		61.9	
PERCENTAGE OF VEHICLES EXCEEDING:			
55 MPH		59.60 MPH	
60 MPH		23.65 MPH	
65 MPH		6.6 MPH	



TABLE 26 -  
SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY	<u>MULTI-LANE, DIVIDED, (RURAL)</u>	
STATION NUMBER	<u>4L-32</u>	
LOCATION	<u>2.9 miles west of Wanatah city limit sign</u>	
NUMBER OF SESSIONS	<u>1</u>	<u>DATES 3-23-78</u>
VEHICLES MEASURED	<u>442</u>	
AVERAGE SPEED (MPH)	<u>58.5</u>	STANDARD DEVIATION <u>4.2</u>
MEDIAN SPEED (MPH)	<u>58.0</u>	85TH PERCENTILE SPEED (MPH) <u>62.2</u>
PERCENTAGE OF VEHICLES EXCEEDING:		
55 MPH	<u>77</u>	60 MPH <u>31</u>
		65 MPH <u>42</u>



TABLE 27  
SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY	MULTI-LANE, DIVIDED, (RURAL)	
STATION NUMBER	4L-10, LOCATION 3.4 miles south of Marion-Johnson County line	
NUMBER OF SESSIONS	1, DATES 3-15-78	
VEHICLES MEASURED	452	
AVERAGE SPEED (MPH)	58.5	
STANDARD DEVIATION	5.4	
MEDIAN SPEED (MPH)	57.7	
85TH PERCENTILE SPEED (MPH)	63.4	
PERCENTAGE OF VEHICLES EXCEEDING:		
55 MPH	73.60 MPH	
60 MPH	31.65 MPH	
65 MPH	8.2	



TABLE 28  
SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY MULTI-LANE, DIVIDED (RURAL)  
 STATION NUMBER 41-11 LOCATION 2.9 miles north of Business 37  
 NUMBER OF SESSIONS 1 DATES 3-16-78 VEHICLES MEASURED 445  
 AVERAGE SPEED (MPH) 58.0 STANDARD DEVIATION 5.4  
 MEDIAN SPEED (MPH) 57.5 85TH PERCENTILE SPEED (MPH) 62.4  
 PERCENTAGE OF VEHICLES EXCEEDING:  
 55 MPH 71 60 MPH 29 65 MPH 7



TABLE 29  
SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY	<u>TWO-LANE, RURAL</u>
STATION NUMBER	<u>2L-18</u>
LOCATION	<u>2.4 miles east of I-69 at Cleo-Glass Research</u>
NUMBER OF SESSIONS	<u>1</u>
DATES	<u>3-21-78</u>
VEHICLES MEASURED	<u>439</u>
AVERAGE SPEED (MPH)	<u>57.1</u>
STANDARD DEVIATION	<u>5.6</u>
MEDIAN SPEED (MPH)	<u>56.8</u>
85TH PERCENTILE SPEED (MPH)	<u>61.4</u>
PERCENTAGE OF VEHICLES EXCEEDING:	
55 MPH	<u>62.2</u>
60 MPH	<u>24.2</u>
65 MPH	<u>5.2</u>



TABLE 30

## SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY	TWO-LANE, RURAL
STATION NUMBER	21-54
LOCATION	1.0 miles south of SR 234
NUMBER OF SESSIONS	1
DATES	3-6-78
VEHICLES MEASURED	461
AVERAGE SPEED (MPH)	56.9
STANDARD DEVIATION	6.1
MEDIAN SPEED (MPH)	56.1
85TH PERCENTILE SPEED (MPH)	62.1
PERCENTAGE OF VEHICLES EXCEEDING:	
55 MPH	59.2
60 MPH	23.1
65 MPH	8.2



TABLE 31  
SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY Two-lanez\_rural  
 STATION NUMBER 2L-1 LOCATION 2.6 miles south of Decatur city limit sign  
 NUMBER OF SESSIONS 1 DATES 3-22-78 VEHICLES MEASURED 451  
 AVERAGE SPEED (MPH) 55.7 STANDARD DEVIATION 5.4  
 MEDIAN SPEED (MPH) 55.2 85TH PERCENTILE SPEED (MPH) 60.4  
 PERCENTAGE OF VEHICLES EXCEEDING:  
 55 MPH 52 60 MPH 17 65 MPH 4



TABLE 32 -  
SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY TWO-LANE, RURAL  
 STATION NUMBER 2L-86 LOCATION 3.5 miles NW of Warren-Fountain County line  
 NUMBER OF SESSIONS 1 DATES 3-28-78 VEHICLES MEASURED 435  
 AVERAGE SPEED (MPH) 55.7 STANDARD DEVIATION 7.3  
 MEDIAN SPEED (MPH) 55.1 85TH PERCENTILE SPEED (MPH) 61.6  
 PERCENTAGE OF VEHICLES EXCEEDING:  
 55 MPH 50 60 MPH 23 65 MPH 7



TABLE 33  
SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY	INTERSTATE	URBAN
STATION NUMBER	UI-6	LOCATION just east of White River
NUMBER OF SESSIONS	1	DATES 3-28-78
VEHICLES MEASURED	494	
AVERAGE SPEED (MPH)	59.2	STANDARD DEVIATION 5.3
MEDIAN SPEED (MPH)	58.8	85TH PERCENTILE SPEED (MPH) 63.4
PERCENTAGE OF VEHICLES EXCEEDING:		
55 MPH	79.2	60 MPH 40.2
		65 MPH 2.2
		70 MPH 9.2



TABLE 34  
SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY INTERSTATE & URBAN  
STATION NUMBER U1-3 LOCATION 1.4 miles south of US 30, 33 and 24  
NUMBER OF SESSIONS 1 DATES 3-22-78 VEHICLES MEASURED 427  
AVERAGE SPEED (MPH) 59.4 STANDARD DEVIATION 5.2  
MEDIAN SPEED (MPH) 58.6 85TH PERCENTILE SPEED (MPH) 63.7  
PERCENTAGE OF VEHICLES EXCEEDING:  
55 MPH 81 60 MPH 39 65 MPH 11





COVER DESIGN BY ALDO GIORGINI